

Contents of *Aquaculture*, Volume 170

VOL. 170 NO. 1

1 January 1999

Diseases, Parasites and Predators

- The occurrence of *Renibacterium salmoninarum* within vaccine adhesion components from Atlantic salmon, *Salmo salar* L. and coho salmon, *Oncorhynchus kisutch* Walbaum
D.W. Bruno (Aberdeen, UK) and L.L. Brown (Halifax, Canada) 1
- The effect of water temperature on rhabdoviral dermatitis in the Japanese eel, *Anguilla japonica* Temminck and Schlegel
T. Kobayashi, T. Shiino and T. Miyazaki (Tsu, Japan) 7

Husbandry and Management

- Application of ammonium to enhance the growth of giant clams (*Tridacna maxima*) in the land-based nursery: effects of size class, stocking density and nutrient concentration
A.M. Grice (Townsville, Queensland, Australia) and J.D. Bell (Honiara, Solomon Islands) 17
- The possibilities for artificial incubation of white-clawed crayfish (*Austropotamobius pallipes* Lereboullet) eggs: comparison between maternal and artificial incubation
J.R. Pérez, J.M. Carral, J.D. Celada, C. Muñoz, M. Sáez-Royuela and J.I. Antolín (León, Spain) 29
- Combined effects of temperature and density on the growth and survival of juveniles of the Australian freshwater crayfish, *Cherax destructor* Clark, Part 1.
G.D. Verhoef and C.M. Austin (Warrnambool, Australia) 37
- Combined effects of shelter and density on the growth and survival of juveniles of the Australian freshwater crayfish, *Cherax destructor* Clark, Part 2
G.D. Verhoef and C.M. Austin (Warrnambool, Australia) 49
- Effect of different levels of eicosapentaenoic acid and docosahexaenoic acid in *Artemia nauplii* on growth, survival and salinity tolerance of larvae of the Japanese flounder, *Paralichthys olivaceus*
H. Furuita, K. Konishi (Mie, Japan) and T. Takeuchi (Tokyo, Japan) 59

Nutrition

- Estimation of the dietary biotin requirement of juvenile hybrid tilapia, *Oreochromis niloticus* × *O. aureus*
S.-Y. Shiau and Y.-H. Chin (Keelung, Taiwan) 71

Physiology and Endocrinology

- Osmoregulatory capacity according to nutritional status, molt stage and body weight in *Penaeus stylirostris*
J.-H. Lignot (Montpellier, France), J.C. Cochard, C. Soyez, P. Lemaire (Taravao, French Polynesia) and G. Charmantier (Montpellier, France) 79

- Guide for Authors 93

VOL. 170 NO. 2

15 January 1999

Diseases, Parasites and Predators

- Vaccination of Atlantic salmon (*Salmo salar* L.) before and during smoltification; effects on smoltification and immunological protection
G. Eggset, A. Mortensen and S. Løken (Tromsø, Norway) 101

Husbandry and Management

- Seawater treatment for larval culture of the fish *Sciaenops ocellatus* Linnaeus (red drum)
P.A. Douillet and P.L. Pickering (Port Aransas, TX, USA). 113
- Transport of the ommastrephid squid *Todarodes pacificus* under cold-water anesthesia
J.R. Bower, Y. Sakurai, J. Yamamoto (Hakodate, Japan) and H. Ishii (Miura, Japan). 127

Nutrition

- Nutrient digestibility for juvenile silver perch *Bidyanus bidyanus*: development of methods
G.L. Allan (Taylors Beach, NSW, Grafton, NSW, Australia), S.J. Rowland (Taylors Beach, NSW, Australia; Bangkok, Thailand), S. Parkinson, D.A.J. Stone (Taylors Beach, NSW, Grafton, NSW, Australia) and W. Jantrarat (Bangkok, Thailand) 131
- The gross chemical composition and fatty acid composition of 18 species of tropical Australian microalgae for possible use in mariculture
S.M. Renaud, L.-V. Thinh and D.L. Parry (Darwin, NT, Australia) 147
- Evaluation of recently isolated Australian tropical microalgae for the enrichment of the dietary value of brine shrimp, *Artemia* nauplii
L.-V. Thinh, S.M. Renaud and D.L. Parry (Darwin, NT, Australia) 161

Book reviews

- Striped Bass and Other Morone Culture 175
- Diagnostic Manual for Aquatic Animal Diseases 176

VOL. 170 NOS. 3, 4

15 January 1999

Diseases, Parasites and Predators

- Per os challenge of *Litopenaeus vannamei* postlarvae and *Farfantepenaeus duorarum* juveniles with six geographic isolates of white spot syndrome virus
Q. Wang, B.L. White, R.M. Redman and D.V. Lightner (Tucson, AZ, USA) 179

Genetics and Breeding

- Third generation evaluation of Sydney rock oyster *Saccostrea commercialis* (Iredale and Roughley) breeding lines
J.A. Nell, I.R. Smith (Taylors Beach, NSW, Australia) and A.K. Sheridan (Grafton, NSW, Australia) 195

Husbandry and Management

- Relationship between Secchi disk visibility and chlorophyll *a* in aquaculture ponds
D.M. Jamu, Z. Lu and R.H. Piedrahita (Davis, CA, USA) 205
- Effects of body weight, water temperature and ration size on ammonia excretion by the areolated grouper (*Epinephelus areolatus*) and mangrove snapper (*Lutjanus argentimaculatus*)
K.M.Y. Leung, J.C.W. Chu and R.S.S. Wu (Hong Kong, China) 215
- Partial decontamination of rotifers with ultraviolet radiation: the effect of changes in the bacterial load and flora of rotifers on mortalities in start-feeding larval turbot
P.D. Munro (Glasgow, UK), R.J. Henderson (Stirling, UK), A. Barbour (Argyll, UK) and T.H. Birkbeck (Glasgow, UK). 229
- Nutrient budgets in tanks with different stocking densities of hybrid tilapia
A.Q. Siddiqui and A.H. Al-Harbi (Riyadh, Saudi Arabia) 245

Nutrition

Effect of meal size modulation on growth performance and feeding rhythms in European sea bass (<i>Dicentrarchus labrax</i> , L.)	
M. Azzaydi, F.J. Martínez, S. Zamora, F.J. Sánchez-Vázquez and J.A. Madrid (Murcia, Spain) . . .	253
Comparative study of digestive enzymes in fish with different nutritional habits. Proteolytic and amylase activities	
M.C. Hidalgo, E. Urea and A. Sanz (Granada, Spain)	267
Availability of phosphorus and trace elements in low-phytate varieties of barley and corn for rainbow trout (<i>Oncorhynchus mykiss</i>)	
S.H. Sugiura (Seattle, WA, USA), V. Raboy, K.A. Young (Aberdeen, ID, USA), F.M. Dong (Seattle, WA, USA) and R.W. Hardy (Hagerman, ID, USA)	285
Comparative evaluation of heat-processed Winged bean (<i>Psophocarpus tetragonolobus</i>) meals as partial replacement for fish meal in diets for the African catfish (<i>Clarias gariepinus</i>)	
O.A. Fagbenro (Akure, Nigeria)	297
Dietary impact of algal and artificial diets, fed at different feeding rations, on the growth and fatty acid composition of <i>Tapes philippinarum</i> (L.) spat	
M. Caers, P. Coutteau and P. Sorgeloos (Gent, Belgium)	307
Influence of broodstock gilthead seabream (<i>Sparus aurata</i> L.) dietary fatty acids on egg quality and egg fatty acid composition throughout the spawning season	
E. Almansa (Cruz de Tenerife, Spain), M (Tenerife, Spain), J.R. Cejas (Cruz de Tenerife, Spain), P. Badía (Tenerife, Spain), J.E. Villamandos (Cruz de Tenerife, Spain) and A. Lorenzo (Tenerife, Spain)	323
Influence of temperature on protein utilization in juvenile European seabass (<i>Dicentrarchus labrax</i>)	
H. Peres and A. Oliva-Teles (Porto, Portugal)	337

Physiology and Endocrinology

Spermatocrit and spermatozoa density in Atlantic cod (<i>Gadus morhua</i>): correlation and variation during the spawning season	
A. Rakitin, M.M. Ferguson (Guelph, Canada) and E.A. Trippel (New Brunswick, Canada)	349
Contents of Aquaculture, Volume 170	359